DOCUMENT RESUME

ED 222 807 CG 016 273

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TITLE Recent Trends in Multiple Authorship in Psychology.
PUB DATE Apr 82
NOTE 12p.; Paper presented at the Annual Meeting of the Western Psychological Association (62nd, Sacramento, CA, April 7-11, 1982).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Authors; *Behavioral Science Research; Professional Recognition; *Psychologists; *Psychology; *Publications; *Social Science Research; Trend Analysis
IDENTIFIERS *Multiple Authorship

ABSTRACT

Research in the late 1950's showed a trend towards increased multiple authorship, as opposed to single authorship, of research papers in psychology. To investigate whether the trend has continued into the 1980's, convention papers presented at the meetings of seven psychological associations and articles published in nine American Psychological Association (APA) journals during 1980-81 were categorized by number of authors. Results indicated that the trend towards more multiple-author papers has continued, with 70% of the convention papers and 76% of the journal articles having more than one author. The findings suggest that the complexity of experimental methodology, the "publish or perish" pressure, and the support provided by a team of researchers may account for continued multiple authorship. (Author/JAC)

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Recent Trends in Multiple Authorship in Psychology

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Recent Trends in Multiple Authorship in Psychology

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Research in the late 1950s and early 1960s showed trends toward increased multiple authorship (as opposed to single authorship) of research papers in the sciences, including psychology (Clarke, 1964; Hagstrom, 1964; Kull, 1965; Price, 1963; Smith, 1958). While reviewing the literature of psychology after World War II for the United States Office of Education, Smith (1958) thought he discerned a general increase in multiple authorship in the late 1950s compared with the early postwar years. He investigated the trend by comparing authorship levels of APA convention papers from 1946 to 1957, and found a marked decline in single-author papers (from 75% in 1946 to 52% in 1957) and an increase in two-author papers (from 19% to 32%) and three-author papers (from 7% to 16%). Smith concluded that there was indeed a trend toward multiple authorship, and that it was likely to continue. After reviewing the evidence of this trend across several disciplines, Price (1963) predicted that, "if it continues at the present rate, by 1980 the single authored paper will be extinct." (p. 87)

Researchers in several disciplines have studied the expected increase in multi-authored research papers over the past two decades, and have found that multi-authored papers have continued to follow the predicted patterns of growth (Beaver & Rosen, 1978; Gordon, 1980; Maanten, 1970; Meadows, 1974; O'Connor, 1969; Pao, 1980). Unfortunately, little research has been done in this area in psychology. In the one study that the present authors could find, Chaison (1971)

found a steady trend toward multiple authorship for journal articles from 1917 to 1969 in the Journal of Applied Psychology.

The main purpose of this study was to investigate the hypothesis that Smith's (1958) predicted trend toward increased multiple authorship in psychological research has continued to the present. A second purpose was to investigate whether journal articles differ from convention papers in percentages of multiple- versus single-author papers. We hypothesized that there is a greater percentage of multi-authored convention papers than of journal articles. This hypothesis was based on our impression that there may be more collaboration among students, and between students and faculty, for convention papers because it is usually easier to get a convention paper accepted than to get a journal article accepted for publication. Thus, there may be higher motivation for collaboration for the easier avenue of academic success.

Method

The authorship group (one author, two authors, three or more authors) was recorded for each of the 2925 papers presented in 1980 at the conventions of the American Psychological Association and six regional Associations--Eastern Psychological Association, Midwestern Psychological Association, Southwestern Psychological Association, Southeastern Psychological Association, Rocky Mountain Psychological Association, and Western Psychological Association. Authorship groups were also recorded for the 843 journal articles published during the last half of 1980 and the first half of 1981 in the nine APA journals covering the same content areas as the convention papers--Journal of Personality and Social Psychology, Journal of Counseling Psychology,

Journal of Applied Psychology, Journal of Comparative and Physiological Psychology, Journal of Experimental Psychology (General, Animal, Human Performance, Learning), and Developmental Psychology.

All authorship groups of more than three authors were included in the open-ended category of "three or more authors" because of the small number of papers and articles with more than three authors.
July 1980-June 1981 was chosen as the time period for journal articles because much of the research published during this period would have been conducted during the same time period as research presented at the 1980 conventions.

Results and Discussion

Table 1 shows the authorship levels of convention papers in 1946 and 1957 (from Smith, 1958) and 1980, and of 1980-1981 journal articles. It can be seen that there has been a continued decline in single-author convention papers from 1946 to 1980, which was accompanied by an increase in two-author papers and papers with three or more authors.

Insert Table 1 about here

The results thus support the main hypotheses. Multiple authorship of convention papers in psychology has continued to increase to the present. The trend toward increased multiple authorship in scientific research has been interpreted in terms of a variety of factors by researchers in fields other than psychology (Gordon, 1980; Meadows, 1974; O'Connor, 1969). Based on these researchers, we offer the following as three plausible explanations of the trend in psychology and as possible areas for future research focus:

1. Complexity of experimental methodology. As experimental methods have become more complex, and as complex statistical analyses have warranted a knowledge of computer applications, the need and likelihood for researchers to work together has increased. Researchers have divided the work according to each author's area of research expertise (e.g., subject matter, computer knowledge, methodology, statistics).

2. "Publish or Perish" pressure. With the pressure on academicians to publish, more researchers might be collaborating in their efforts to get published. There is evidence that faculty are increasingly collaborating with graduate students to accommodate this fiat (Herald, 1968; Mendenhall, 1982; Spiegel & Keith-Spiegel, 1970). Also, in order to get a jump on the academic job hunt by publishing and presenting research, graduate students seem to be teaming up among themselves in doing research (Glenwick & Burka, 1978; Mendenhall, 1982).

3. Support. There is a greater likelihood of research team members motivating or encouraging one another to do the work, and more importantly, see the project to completion. Glenwick and Burka (1978) suggested that this function of collaboration is perhaps the most vital and cogent reason for combining effort. One has only to think of all the "half-done" or "studies-to-do" folders that are sitting in the file cabinet gathering dust, to appreciate this aspect of motivation toward multiple authorship.

Table 1 shows that multiple authorship also predominated in the 1980 journals; multi-authored journal articles in 1980 outnumbered single-author papers by a ratio of 3 to 1. A chi square analysis indicated a significant difference between 1980 convention papers and

1980 journal articles in the percentages of different authorship levels (X^2 = 6.86, 2 df, $p<.05$). However the difference does not support the second hypothesis. The percentage of multi-author papers at conventions (70%) is actually a little less than in journal articles (76%). Thus, contrary to our hypothesis, the comparative ease of having a convention paper accepted for presentation over having a manuscript accepted for publication does not seem to stimulate collaboration among psychologists. Indeed, the very opposite may be true; that is, stricter editorial requirements may facilitate collaboration in order to add more scientific expertise to the study, thus enhancing its chances for publication. Further research might be done in order to clarify this relationship.

A fair question from applied researchers might be, "Why bother to investigate this phenomenon at all?" We would answer this question in two ways:

First, research into the phenomenon may tell us more about group dynamics, as well as more about the research process itself. In 1958 Smith noted that, "multiple authorship is as much an example of small groups phenomena as any now being investigated by specialists in the psychology of small groups." (p. 598) Thus, this phenomenon may deserve study simply because it is a social phenomenon in and of itself.

Second, by studying this and other trends in the research process, we can see where we have been and where we are going, and thus decide whether we want to go there. By conducting research that looks at the sociology of the field, we allow ourselves the luxury of analyzing our progress and directions. For example, if theoretical contributions to the field are accomplished late at night, under the fevered pen of the

lone thinker, then we as a discipline may be moving away from theoretical questions toward empirical questions.

Because we did not record authorship levels for journal articles in 1946 and 1957 we cannot compare those percentages to 1980-1981 to investigate a time trend for journals. This might be worth pursuing in future research. In addition, the conclusions of this study are based only on APA journals. It might be interesting to determine whether non-APA journals differ from APA journals in multiple authorship, and if so, why. The conclusions that seem to be indicated by this study are that the trend towards more multiple-author convention papers has continued to the present, and that the percentage of multiple-author journal articles is slightly higher than that of multiple-author convention papers.

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Footnote

This article is based on a paper presented at the meeting of the Western Psychological Association, Sacramento, April 1982.

Table 1

Percentages of Convention Papers and

Journal Articles at Each Authorship Level

	Year			
No. of		Papers		Articles
Authors	1946	1957	1980	1980
1	75	52	30	24
2	19	32	42	45
3+	7	16	28	31